

College Men's Concerns About Sharing Dormitory Space with a Male-to-Female Transsexual

Jennifer Watjen · Robert W. Mitchell

Published online: 29 June 2012
© Springer Science+Business Media, LLC 2012

Abstract We examined male college students' attitudes toward sharing dormitory space with a male-to-female (MTF) transsexual. Participants read three scenarios, in a sequence of either increasing or decreasing contact with the transsexual, in which they imagined sharing dormitory space with a MTF transsexual as a roommate, in the bathroom, and at a residence hall meeting, after each of which they answered open-ended questions about how they would feel or act, or what they would do if they were a resident advisor, in the imagined scenarios. Participants then rated statements measuring their attitudes toward transsexuals and toward masculine norms. Whether they imagined increased or decreased contact, participants expressed comparable transphobia, and made numerous negative and neutral statements and fewer positive statements about how they would feel or act. However, many students made positive statements about how they would act toward the transsexual, particularly in the roommate situation. Adherence to masculine norms and transphobia were so highly positively correlated that they apparently measured a common attitude, but regression analyses indicated that transphobia mediated the association between adherence to masculine norms and frequencies of positive, negative and neutral responses to the open-ended questions. Men who were Christian, from middle to high SES families, and heterosexual were more transphobic and adhered more to masculine norms than those who were nonChristian, from lower SES families, and gay, respectively. Black and white men were equally transphobic and adhered equally to masculine norms. The men's recommendations when imagining themselves as a resident advisor typically concerned making connections between the men and the transsexual and controlling the situation.

J. Watjen · R. W. Mitchell (✉)
Department of Psychology, Eastern Kentucky University, 127 Cammack Building, Richmond, KY 40475, USA
e-mail: robert.mitchell@eku.edu

Keywords Masculinity · Transsexuality · Transphobia · College men · Attitudes · Dormitory life

Introduction

For young adults, arrival at college may produce diverse responses: fear about being away from the comforts of home, a desire to gain acceptance from unfamiliar people, and discovering and exploring new aspects of themselves. College also introduces students to unfamiliar ideas, and to people who may be quite different from them. Successful maturation to adulthood requires appropriate coping with the unfamiliar. This study focuses on male college students' attitudes about sharing dormitory living space with a preoperative male-to-female (MTF) transsexual, specifically in their residence hall and restroom, and as a roommate. The study developed following interviews with MTF transsexuals concerning difficulties they experienced while at college (Watjen 2010). Transsexuals experience frequent hostility on American campuses, though whether this occurs in their dormitory or outside is unclear (see Rankin 2003); often it is difficult for them to be placed in dormitories (National Student Genderblind 2010). Transsexuals likely also experience hostility on British campuses, but their experiences were not differentiated from those of lesbian, gay or bisexual students (Ellis 2009).

MTF transsexuals are individuals born male who choose to live as female via hormonal and surgical transformation from male to female (Israel and Tarver 1997), though some MTF transsexuals avoid some or all surgeries (Pusch 2005). Transsexuals are only a portion of transgendered persons, an umbrella term incorporating individuals who present or experience some salient discord in relation to cultural expectations of their sex; cross-dressers, feminine men, and masculine women can be considered transgendered. By contrast, a cisgender is a person whose gender and bodily sex are mostly in accord in relation to cultural expectations (Schilt and Westbrook 2009).

Despite extensive public awareness about transsexualism, many colleges across the US fail to provide adequate accommodations for transsexual and other transgendered students (Beemyn et al. 2005; Conway 2007; National Student Genderblind 2010; Sanlo et al. 2002; Transgender Law & Policy Institute 2012). According to the Transgender Law & Policy Institute (2012), currently 423 academic institutions offer nondiscrimination policies concerning gender identity and expression, but only 85 offer housing that is not restricted to one gender or the other. College dormitory spaces are normally restricted to either males or females, and transsexual students assigned to dormitories are required to live with individuals of the same legal sex. Thus, a preoperative MTF transsexual would live in a male-only dormitory, and a postoperative MTF transsexual would live in a female-only dormitory. These requirements mean that male college students may have to share living space with a preoperative MTF transsexual. As such an arrangement may be discomfiting for both the transsexual and the men living with her, it is important to explore how young college men would respond to such a living arrangement. Because we anticipate that the extent of men's adherence to masculine norms will

influence their attitudes toward an MTF transsexual, we focus on theory and research about men's concerns about masculinity and their responses to violations of the male gender role.

Masculinity and Transphobia

Masculine and feminine gender roles are cultural expectations of the qualities, mannerisms, and duties of men and women, respectively (Israel & Tarver 1997). Masculinity is an idealization that incorporates key attributes such as control, competition, aggression, and physical strength (Connell 2005; Drummond 2011). Being male, with its attendant masculinity, is highly valued in American culture (Kilianski 2003). For most men, the idea of choosing to be a woman is unimaginable. In the American cultural ethos, women are feminine, and being feminine is the antithesis of masculinity (Israel and Tarver 1997; Kimmel 1994). A cardinal rule for men is "don't be feminine" (Blazina 2008). Feminine men and men presumed to be feminine (e.g., gay men) are viewed as threats to a man's masculinity and thus can be objects of anxiety who can, consequently, be subjected to ridicule and aggression (Franklin 2000, 2004; Parrott 2008; Parrott et al. 2002). Indeed, heterosexual men whose masculinity has been threatened act more aggressively toward feminine or gay males than toward masculine or heterosexual males, respectively, especially if the heterosexual men are homophobic (Bernat et al. 2001; Glick et al. 2007; Talley and Bettencourt 2008). In many people's minds, a preoperative MTF transsexual *is* a feminine man (complete with penis) until the operation to become a woman (and for some, even after). (Indeed, this idea is consistent with the rare labeling of the MTF transsexual in our as study as "she" and the more frequent labeling as "he" by the participants.) Obviously, then, a preoperative MTF transsexual can be viewed as a threat to a man's masculinity in the same way that a nontranssexual feminine man is, and thus may be the occasion for negative action by males.

Why femininity in a man is considered a threat to cisgender men is complicated. Satisfying cultural norms concerning masculinity is an achievement for most men, who set the standard of masculinity by which other men are measured (Kimmel 1994). Cisgender men, in attempting to maintain their masculinity, are especially reluctant to sustain interaction with men whom they presume to show diminished masculinity, typically gay men (Harding 2007; O'Neil et al. 1986), though there is some evidence that cisgender heterosexual men are open to friendships with gay men (Galupo 2009; Mitchell and Ellis 2012; Rumens 2010). Interestingly, gay men show a pattern similar to that of heterosexual men: they tend to have more negative attitudes toward feminine gay men than toward masculine ones (Bailey 2003; Bergling 2001). Much as interaction with a gay man can (Kimmel 1994; Knauer 2000), being around a MTF transsexual might instill a sense of anxiety in heterosexual men because of the possibility of losing traditional masculine privileges by being perceived as unmasculine or feminine by association, or because culturally inappropriate femininity can be viewed as contagious (Cavanagh 2010, p. 64; Kimmel 1994; cf. Norton 1997). For example, intolerant male

participants perceive a male college student choosing to share a room with a gay man as being gay and as having stereotypically gay characteristics (Sigelman et al. 1991). For most men in the US, being a masculine man prescribes desiring women sexually, and desiring only women (Bem 1981). Desiring or having sex with men (and/or being gay) is decidedly unmasculine (Herek 1986; Leaper 1995; Kite and Whitley 1998; Reay 2010), and thus can diminish one's masculinity in the eyes of others (Blashill and Powlishta 2009a, b; Karr 1978; Mitchell and Ellis 2011, 2012). Heterosexual men's concerns about being incorrectly viewed as gay (and, thus, feminine) may contribute to their adherence to gender roles (Baker and Fishbein 1998; Morman and Floyd 1998; Roese et al. 1992; White 1993) and avoidance of gender-variant men (Harding 2007). Publicly avowing their heterosexuality (thereby avoiding being mistaken for gay) can alleviate discomfort some men feel when engaging in feminine behavior (Bosson et al. 2005; Harding 2007). Apparently, public proclamation of their heterosexuality can even allow some men to feel comfortable engaging in same-sex sexual behavior without fear of losing their heterosexual status (Anderson 2008; Reay 2010; Syrett 2009). Interestingly, heterosexual male high school students in the midwestern US view being feminine as less acceptable for a male peer than being gay (Horn 2007), suggesting that gender expression and homosexuality are becoming to some degree dissociated (though see Blashill and Powlishta 2009a, b; Karr 1978; Mitchell and Ellis 2011, 2012, for evidence that they are not). However, many men may believe, contrary to evidence, that a MTF transsexual is really a homosexual man (Tee and Hegarty 2006; cp. Devor 1993). Having a MTF transsexual as a roommate seems likely to create concerns for men who adhere strongly to masculine norms, but might be viewed as somewhat disconcerting even by tolerant men.

Given men's active policing of their own and others' adherence to the male role, it is likely that they would view a man wanting to be a woman as unexpected and disturbing. In addition, they may find themselves attracted to someone with the outward appearance of a woman, though men who adhere strongly to masculine norms are unlikely to admit such attraction to someone they know to be a man (Adams et al. 1996).

Transphobia is conceptualized as fear and/or emotional disgust towards individuals who do not conform to society's gender expectations, which includes transsexual and other transgendered people (Hill 2002). Homophobia is similarly conceptualized as fear and/or emotional disgust toward gay or lesbian individuals. Both "phobias" are evaluated by how disturbed or uncomfortable people are in relation to the target groups. Homophobia and transphobia share some commonalities. Homophobia scales evaluate negative attitudes toward persons with a non-normative (gay or lesbian) sexual orientation; non-normative gender role is perceived to be a secondary issue, although the two attributes (e.g., being gay and being feminine) are commonly believed within American culture to be coextensive (see, e.g., Blashill and Powlishta 2009a; Mitchell and Ellis 2011). Transphobia scales evaluate negative attitudes toward (usually) others being cross-gendered, having a sex-change operation, and expressing non-normative gender roles (though see Bailey 2003). Transsexual individuals clearly do not conform to traditional gender expectations.

Men and women differ in their prejudices against gay men and transsexual individuals. Men score significantly higher than women on both homophobia and transphobia scales, though for both men and women, transphobia was connected with socially conservative attitudes of adherence to social norms (Hill 2002). Hypermasculinity, as reflected in aggression proneness or strict adherence to male gender norms, correlates with transphobia and homophobia in men (Keiller 2010; Nagoshi et al. 2008; Parrott and Zeichner 2005, 2008). Such correlations could occur because men's anxiety increases when confronted with any nontraditional gender roles. However, comparisons of negative attitudes toward gay men and transsexuals indicated that more men than women viewed transsexuality as more wrong than homosexuality. In the US, male students were more inclined to support equal opportunity for gay men than for transsexuals, perhaps because transsexuals are more of a threat to their masculinity (Leitenberg and Slavin 1983). European men also show a negative attitude toward transsexuals. Swedish men held more restrictive views than did women on issues such as their personal relations with a transsexual and transsexuals marrying (Landen and Innala 2000). In the United Kingdom, men expressed greater opposition to transgendered persons' civil rights than did women (Tee and Hegarty 2006). Among Polish college students, men were more reluctant than women to allow transsexuals to undergo hormonal and surgical treatment, to legally change their name, or to get married and adopt children (Antoszewski et al. 2008). For whatever reasons, in general Western men apparently hold a more negative attitude than women toward transsexuals.

Sharing Space

Being in control is a traditional masculine attribute (Day et al. 2003; Fondas 1997; Jackson 1991). Unfamiliar public spaces can bring about a feeling of loss of control in men, which can be accompanied by feelings of anxiety (Day et al. 2003). A majority of the men in the Day et al. study identified their apprehension in unfamiliar areas as a feeling of being "out of control." These men described apprehension toward places with unfamiliar people, especially different cultural or ethnic groups. College campuses, where students are surrounded by diversity and exceptions to social norms and are expected to critically examine social norms, seem likely to induce feelings of loss of control.

Historians and social theorists depict restrooms as a significant source of anxiety for men and women, whether transsexual or not, particularly because they are gendered spaces (Cavanagh 2010; Gershenson and Penner 2009; Molotch and Norén 2010). A man in a women's bathroom, or a woman in a man's bathroom, may be amusing if a mistake, but can result in arrest in the US (Cooper and Odenziel 1999) and Canada (Cavanagh 2010) and is usually considered inappropriate and worrisome by women and men, respectively. When the first woman was accepted to become a student at the previously all-male Citadel, a southern US military college, the most frequently expressed concern by the male students was her possible intrusion into their communal bathroom (Faludi 1994). Because bathrooms are gendered spaces, a man entering a men's bathroom and finding a preoperative MTF transsexual can be unnerving for both parties (see Cavanagh 2010). Indeed, a

considerable part of a transsexual person's day in a new location can be spent searching for a bathroom facility or returning to a known safe bathroom, because being found in the "wrong" bathroom can result in problems (Cavanagh 2010; Watjen 2010). For some men, sharing a public bathroom space with a MTF transsexual may induce feelings of being out of control comparable to sharing a public bathroom with a woman.

Introducing men with a lack of empathy or awareness to an unfamiliar place like a residence hall containing individuals who challenge masculine gender roles may result in difficulties. Male college freshmen show significantly less interest in learning about the issues surrounding LGBT students, and perceive less anti-LGBT attitudes on campus, than do college females and older college males (Brown et al. 2004). To such men, it may seem reasonable to be hostile and provoking to transsexuals (see Ellis 2009).

When men are asked to explain how they might deal with confrontational situations, their strategies include avoiding places or situations that presented a high potential for confrontation, avoiding behaviors that would provoke confrontation from others, and maintaining group alliances in public spaces (Day et al. 2003). A majority of the men examined by Day et al. admit to partaking in confrontation on basketball courts and at parties, places where competition supported their masculinity. Men may try to avoid confrontation in residence halls—a space that is initially unfamiliar and contains diverse individuals, but one to which they must return daily—though completely avoiding a MTF transsexual who is living in one's dormitory would be difficult. Residence halls are also a place where men socialize, and compete in relation to masculinity. Thus, some men, especially those in groups, may provoke a confrontation as a way to express an inappropriate masculinity (Franklin 2004), or perhaps to maintain traditional male and female gender roles (Namaste 1996). Consequently, placing MTF transsexuals in the dorm may provide them with a mixed habitat: their male dormmates may avoid harassing them initially, but then may increase harassment as these males form social bonds and begin to compete about masculinity. One MTF transsexual student interviewee living in the dorm "experienced verbal abuse, destruction of her personal property, and an overwhelming feeling of being isolated and unwelcomed" (Watjen 2010, p. 25).

There may be benefits for all dormitory residents if the men can come to know their transsexual dormmate personally. People who have actually interacted personally with a transsexual appear to be less transphobic than people who have not (Hill and Willoughby 2005; Tee and Hegarty 2006), much as people who know a gay man are less homophobic in their attitudes than people who do not (Altemeyer 2001; Ellis and Vasseur 1993; Herek and Capitanio 1996; though see Vonofakou et al. 2007 for complications with this idea). Similarly, although American college men were initially less comfortable than women with cross-dressing men, upon meeting two cross-dressing men in a classroom setting both men and women became equally comfortable (Ceglian and Lyons 2004). Such findings support Allport's (1954) contact theory: that interacting with people toward whom one has prejudice can reduce one's prejudice toward them. An extension of Allport's theory posits that even indirect forms of "contact" (e.g., observation, imagined positive interaction) can reduce prejudicial attitudes (Crisp and Turner 2009; Dovidio et al.

2011; Mazziotta et al. 2011; though see Bigler and Hughes 2010). Perhaps male students in residence halls asked to imagine interacting with a MTF transsexual person in their residence hall will develop less negative and more positive attitudes toward transsexual individuals.

Exactly how one imagines oneself interacting with a MTF transsexual can be expected to influence people's attitudes toward them. We manipulated how participants did so by presenting them with two different sequences in which they imagined interacting with a MTF transsexual in their dormitory. In one sequence, the participant initially met the transsexual on a personal level, by having her be his roommate, then see her in the bathroom, and finally see her in a dorm meeting. In the other, the participant was initially more distant from interacting, by having the participant see the transsexual at a dorm meeting, then in the bathroom, and finally meet her as a roommate. This manipulation was engendered by a naïve belief that a gradual introduction to the transsexual through successively closer imagined encounters would be more effective in reducing negative attitudes to the transsexual than would a confrontational first meeting followed by less close encounters. Specifically, we expected that men who began the study by imagining a MTF transsexual as a roommate would be more uncomfortable and express a greater desire to distance themselves from a feminine man associated with them than men who were more gradually introduced to this idea of sharing a room by imaginatively meeting the transsexual beforehand. In fact, the evidence, though equivocal, suggests the alternative, at least in actual dyadic or group interaction: confrontation may arouse students in such a way as to open them to perspectives alternative to their own (Olson and Claiborn 1990; Pollack 1971).

Another way in which we influenced how the men imagined themselves was asking them to imagine themselves in two different relationships to the MTF transsexual: as a student sharing dorm space, and as a resident advisor assisting the men in the dorm to cope with the situations described. Imagining oneself as a resident advisor requires a different perspective on the situations than imagining oneself as a fellow student with the transsexual, in that the former focuses attention on both control over situations and nurturance toward the students in the dorm. Being a good resident advisor requires taking into account not only one's higher status and its attendant possibilities for control, but also providing a safe and hospitable environment for the students under your control. Status and control are aspects of traditional male gender norms, whereas nurturance, though clearly part of most men's social skills, is not. We anticipated that men exhibiting greater adherence to traditional male norms will focus more on control, and less on nurturance, than men exhibiting less adherence to traditional male norms.

We wondered if some anxiety about their own sexual responses toward "a woman who is really a man" or a "man who looks just like a woman" would raise problems for men. One might expect homophobic men to feel sexually aroused by a person who looks very much like a woman, as well as aggressively aroused by a feminine man. Indeed, homophobic men were sexually aroused when shown graphic erotic videotapes of men engaged in sexual activities (Adams et al. 1996). However, the homophobic men in the Adams et al. study denied being sexually aroused, so it

is unlikely that men feeling aggressive arousal would also acknowledge sexual arousal. By contrast, homophilic men (i.e., gay men) might find a man sexually interesting, even if he were wearing women's clothing.

Overview of Study

In this study, male participants were asked to read and imagine themselves in three scenarios about interactions with a MTF transsexual living in their dormitory, and answer a series of questions about their attitudes toward the transsexual and how they would act toward her in the situations described in the scenarios. The sequence of scenarios for one set of participants increased participants' involvement with the transsexual from seeing her in a residence hall meeting, to seeing her in his floor's restroom, to getting assigned to her as his roommate; the scenarios for the other set decreased involvement by having the interactions occur in the reverse direction (from roommate, to restroom, to meeting). In addition, participants were asked to rate their attitude toward a series of statements that assessed adherence to male gender (masculine) norms, transphobia, and interest in transgendered persons and phenomena. These questions were used to examine male students' expectations about their reactions to sharing public spaces with a MTF transsexual.

We evaluated 6 sets of hypotheses:

Hypothesis 1 Demographic variables will influence participants' adherence to masculine norms, transphobia, and the frequency of negative, positive and neutral statements.

1a Adherence to masculine norms and transphobia will be less extensive in older men, based on evidence that men tend to be less restrictive in relation to gender roles as they age (Fischer and Narus 1981; Moreland 1980).

1b Christian men, given their usual fundamentalist and conservative tenor in the southern US and associated pervasive homophobia (Dudley and Mulvey 2009; Greslé-Favier 2009), will show greater adherence to masculine norms and transphobia than men with other religious or atheist convictions (see also Tee and Hegarty 2006), and will also make more negative statements and fewer positive and neutral statements than the other men.

1c Black and white college men will show no differences in adherence to masculine norms and transphobia. We initially predicted that black men, given their greater homophobia compared to white men (Lewis 2003), will show greater adherence to masculine norms and transphobia than white men, and will make more negative statements and fewer positive and neutral statements, than white men. However, following submission of the manuscript, a more relevant study focusing on black and white college students in the Midwestern US indicated no differences between these groups in attitudes toward gay men or lesbians (Jenkins et al. 2009).

1d Men from families with a low socio-economic status (SES) will show greater adherence to masculine norms and transphobia than men from families with middle and high SES, and will make more negative statements and fewer positive and neutral statements than men from families with middle and high SES, given the greater homophobia of individuals with a lower SES compared to those with a higher SES (Tasker and Golombok 1997).

1e Heterosexual men will show more adherence to masculine norms and transphobia than gay men, and will make more negative statements and fewer positive and neutral statements than gay men, given gay men's likely experience of homophobia and their societal association with transgendered people as represented in the LGBT (Lesbian, gay, bisexual and transgender) community (Beemyn et al. 2005). We also expected gay men to show more interest in transgendered phenomena than heterosexual men.

Hypothesis 2 Men who began the study with the scenario describing the most intense level of contact with the transsexual will show greater adherence to masculine norms and transphobia, and will make more negative and awkward responses and fewer positive and neutral responses to the open-ended questionnaire, than will the men who began by answering questions about the scenario with the least intense level of contact.

Hypothesis 3 Adherence to masculine norms and transphobia will be positively correlated, and both will be negatively correlated with interest toward transgender phenomena.

Hypothesis 4 Greater adherence to masculine norms and transphobia will predict more negative and awkward and fewer positive and neutral statements toward the fictional transsexual, based on findings from open-ended questions. In addition, transphobia will act as a mediator between adherence to masculine norms and the frequencies of these statements.

Hypothesis 5 In relation to the imagined situations, more men will make negative statements about the roommate situation than about the other two situations, and more men will express awkwardness and fewer will make neutral and positive statements about the roommate and bathroom situations than about the meeting situation. More men will express curiosity in their statements about their feelings toward the transsexual in the meeting situation than in the other two situations (in which their curiosity may be suspect). More men will make jokes about the bathroom situation than about the other two situations, and more men will make self-focused comments about the roommate and bathroom situation than about the meeting situation.

Hypothesis 6 In relation to the recommendations men will make when imagining themselves to be a resident advisor with a transsexual person on their floor, the more men adhere to traditional male norms, the more they will focus on control, and the less they will express nurturance.

Methods

Participants

Participants consisted of a convenience sample of 114 male Eastern Kentucky University (EKU) students enrolled during the fall semester of 2010 in psychology classes that require students to engage in relevant nonclass activities for class credit; all students could engage in options other than participating in research. These classes include introductory psychology (which includes both psychology and other majors), as well as research methods and statistics for psychology majors. The students ranged in age from 18 to 40 years old; the average age was 21.2 ($se = 0.41$), median age, 20, and modal age, 19. Seventy-nine percent identified as Christian (from diverse denominations, with 85 % designated simply as "Christian"); one man identified as Buddhist, one as a Deist, and the rest identified as atheist or agnostic, or offered no religious affiliation. Eighty-seven percent were white (including 1 Hispanic) and 11 % were black (including 1 "mixed" race/ethnicity); in addition, 1 male identified as other, and 1 did not answer. Eighty-nine percent classified themselves as heterosexual, 7 % as gay or bisexual, and the rest classified as "other" or offered no classification. In their family's socio-economic status, 3 % designated themselves as high, 61 % as middle, 23 % as low, and the rest failed to answer.

Materials

All materials were presented online. Materials included a brief description of the nature of MTF transsexuality, a brief overview of the study, three brief scenarios regarding imagined physical nearness ("contact") with a MTF transsexual in public spaces each followed by four open-ended questions in response to the imagined contact (see [Appendix](#)), an attitude questionnaire concerning attitudes toward transsexuals and related phenomena, and toward masculinity (see questions in Tables 1, 2), and a request for demographic information (age, race/ethnicity, religious affiliation, socioeconomic status, and sexual orientation). One scenario presented contact with a MTF transsexual on a residence hall floor, a second presented contact with a MTF transsexual in the restroom on the residence floor, and the third presented contact with a MTF transsexual in close quarters as a roommate. One group of participants read the scenarios in this order, and another in the reverse order; in this way, the level of imagined contact with the transsexual either increased or decreased. The open-ended questions asked participants to state how they felt when imagining the situation, how they thought they would act, how they thought they would act in relation to the transsexual, and what they would recommend doing in the situation if they were the resident advisor responsible for the dorm space.

The attitude questionnaire consisted of 34 Likert type statements rated on a scale of 0 (strongly disagree) to 5 (strongly agree) that followed each question; the integers between 0 and 5 were equidistant and marked on a line below, but not verbally labeled. The statements are presented in Tables 1 and 2 (each statement is

Table 1 Factor loadings for answers to questions that were consolidated into Factor 1, which includes questions concerned with having negative reactions toward MTF transsexuals (transphobia§) and maintaining traditional gender roles (adherence to masculine norms*)

0.882	31. Men who enjoy cross-dressing are disgusting to me.*
0.843	22. I cannot understand why a man would act feminine.*
0.835	19. If I found out that my best friend was changing his sex, I would freak out.§
0.835	05. I would feel nervous being in a group of transsexuals.§
-0.821	24. If a male friend wanted to have surgery to become a woman, I would openly support him.§
0.815	02. I would feel uncomfortable if I learned that my neighbor was a male-to-female transsexual.§
0.813	26. Sex change operations are morally wrong.§
0.795	03. I would feel uncomfortable knowing I was attractive to a transsexual.§
0.785	20. God made two sexes and two sexes only.*
0.783	06. I would be upset if I learned that my sibling was transsexual.§
0.774	27. Feminine men make me feel uncomfortable.*
0.761	34. I would feel uncomfortable if I learned that my doctor was a transsexual.§
-0.747	11. If a man made an advance towards me, I would feel flattered.*
0.730	08. I would feel uncomfortable if I learned that my partner was transsexual.§
0.724	28. People are either men or women, biologically speaking.*
-0.722	30. There would be nothing immoral if I or another man repeatedly dressed as a woman in public.§
0.721	04. I would be uncomfortable if I found myself attracted to a member of my sex.*
-0.709	12. I can feel empathy towards a man who felt he was really a woman.§
-0.708	25. Individuals should be allowed to freely express male and female aspects of themselves.*
0.702	14. I would be upset if a woman I'd known for a long time revealed to me that she had been a man.§
0.686	07. I would feel that I had failed as a parent if I learned that my grown son decided to become surgically changed to a woman.§
0.678	13. I wouldn't like it if someone I couldn't tell was a man or a woman was flirting with me.*
-0.556	09. I would feel at ease talking with a transsexual at a party.§
0.544	17. I am uncomfortable around people who don't conform to traditional gender roles, e.g., aggressive women or emotional men.*
0.490	29. My friends and I have often joked about men who are feminine or gay.*
-0.415	16. I believe that a male/female dichotomy is natural.*
-0.337	15. I would feel comfortable working closely with a male-to-female transsexual.§
0.311	01. When I meet someone, it is important for me to be able to identify him or her as a man or a woman.*

Integers prior to each statement represent the order in which participants received the statements (see also Table 2). Rankings of statements with negative factor loadings were reverse coded when summed into MN (adherence to masculine norms) scores and TPh (transphobia) scores, but only rankings of statements whose factor loadings were above 0.5 were included

Table 2 Questions that were consolidated into Factor 2, in which high scores expressed interest in and sexual or aggressive arousal toward MTF transsexuals

0.707	21. If I walked in on a male cross-dresser in the locker room removing his feminine clothes, I might become unintentionally aroused
0.690	23. I would enjoy having sex with a woman who had a surgically created vagina
0.676	32. I would enjoy sexual relations with a man if he were feminine and dressed as a woman, if he were interested in having sex with me
0.611	10. If a man dressed as a woman entered while I was using the restroom, I am afraid I could become aroused
0.607	33. If my cross-dressing roommate left for the weekend, I would think about trying on his high-heeled shoes, a dress, or makeup
0.473	18. I have behaved violently toward a man because he was too feminine

Note Integers prior to each statement represent the order in which participants received the statements (see also Table 1). Only rankings of statements whose factor loadings were above 0.5 were included in TIA scores (see text)

preceded by a number representing the order in which participants received them). The statements are derived (and sometimes modified) from the Genderism and Transphobia Scale (GTS: Hill 2002; Hill and Willoughby 2005) and the Index of Attitudes toward Homosexuals (IAH: Ricketts and Hudson 1980/1998). The GTS is a reliable and valid instrument to measure discrimination toward cross-dressers, transsexuals, and other transgendered people (Hill 2002; Hill and Willoughby 2005), and the IAH is a reliable and valid instrument to measure homophobia (Ricketts and Hudson 1980/1998; Pain and Disney 1995). The statements examined three topics: adherence to masculine norms, transphobic attitudes, and interest in and arousal toward transgendered phenomena. These statements are listed in Tables 1 and 2. In Table 1, statements ending with the asterisk (*) measured masculine norms (MN), and statements ending with the section sign (§) measured transphobia (TPh). Some statements were stated positively, and some negatively; the latter, represented by a negative factor loading in Table 1, were reverse coded to create MN and TPh scores. Higher MN scores indicated a greater acceptance of the traditional male gender role, and higher TPh scores indicated a greater disturbance and discomfort with MTF transsexuals.

We included statements assessing interest in, and sexual or aggressive arousal toward, transgendered stimuli, typically a man wearing women's clothing (see Table 2). Positive responses to these statements represented a "transgender interest and arousal" measure, or TIA. The first 4 statements in the TIA group listed in Table 2 concern sexual arousal, either toward a postoperative MTF transsexual or toward a man in woman's clothing, the next, interest in trying on feminine apparel, and the last, aggressive arousal toward feminine men.

Procedure

Participants signed up on a computer to participate in the study. Participation was entirely online. Participants could sign up for only one of two studies on the same topic. By signing up for one experiment or the other, participants were assigned to

one of the two sequences of scenarios. After a brief introduction to the study, and agreement with a statement that they were male, participants read one scenario regarding contact with a MTF transsexual and answered the four open-ended questions following the scenario, read the next scenario and answered similar questions, and then read the last scenario and answered similar questions. Next, they completed the 34-item questionnaire and then provided demographic information. Participants had to complete each section before moving onto the next, though they were free to leave no response.

Fifty-five men received the questionnaire that began with the sequence of scenarios with increasing contact with the MTF transsexual (meeting, bathroom, roommate); of these, 43 answered all the questions on the attitude questionnaire. Fifty-nine men received the questionnaire that began with the sequence of scenarios with decreasing contact with the MTF transsexual (roommate, bathroom, meeting); of these, 50 answered all the questions on the attitude questionnaire. The two groups reading the different sequences of scenarios were similar in age (based on ANOVA) and in frequencies of religious, racial/ethnic, sexual orientation, and SES identification (based on Chi-square analysis). The average, median, and modal rankings for each question are presented in Table 3, based on answers from all men who answered each particular question. A few participants failed to answer some questions (see Table 3). If the question a man failed to answer was used to compute scores, their data were not included in analyses using those scores. Thus, the number of men evaluated in any given analysis is variable. All of the men provided answers to all of the open-ended questions.

Coding and Analysis

We performed a Factor Analysis on the rankings to the 34 statements on the attitude questionnaire to discern how the answers intercorrelated (see “[Preliminary Results](#)”). From these factors, we decided on the answers that were to be used to derive scores for adherence to masculine norms (MN scores), transphobia (TPh scores), and interest in and arousal to transgendered phenomena (TIA scores). The influence of demographic factors on these scores were assessed by the Mann–Whitney *U* test or correlation, and the influences of these scores on each other and on the frequencies of positive, negative, neutral and awkward statements were assessed by correlation and hierarchical multiple regression (following the three-part method of Baron and Kenny [1986](#)). Note that all means in the Results are estimated marginal means.

The answers to the first three open-ended questions were examined qualitatively to derive 9 categories of responses: negative, positive, neutral, awkward, confused, curious, self-focused, jokes, and not sure how to respond. See Table 4 for criteria for each category, and Table 5 for examples of responses in each category. Participants often provided responses to a given question that incorporated more than one category of response (rarely more than 3); for any given question, the response was coded as to whether or not it contained positive, negative, neutral, etc. statements. Thus, each person could achieve a maximum of 9 instances of each of the 9 categories across all 9 questions, when all answers were summed. The first

Table 3 Modes, medians, average ranks, standard error (*se*), and sample size (N) for answers (on a 0 to 5 point scale) to each of the 34 questions from the forced-choice questionnaire (see Tables 1 and 2 for specific question corresponding to question #)

Question #	Median	Mode	Average	<i>se</i>	N
1	4	5	3.56	0.164	110
2	3	5	2.86	0.17	114
3	5	5	3.77	0.16	114
4	5	5	4.15	0.15	114
5	4	5	3.59	0.16	114
6	3	5	3.16	0.17	114
7	4	5	3.23	0.17	114
8	5	5	4.34	0.12	114
9	3	0	2.29	0.16	114
10	0	0	0.48	0.10	112
11	0	0	1.18	0.15	114
12	2	0	1.89	0.16	114
13	4	5	3.73	0.15	114
14	4	5	3.32	0.15	114
15	3	3	2.54	0.16	114
16	1	0	1.59	0.17	101
17	2	1	2.16	0.16	112
18	0	0	0.83	0.12	112
19	4	5	3.32	0.17	114
20	5	5	3.59	0.17	112
21	0	0	0.50	0.09	113
22	4	5	3.25	0.16	114
23	0	0	0.54	0.12	110
24	2	0	1.90	0.17	114
25	3	5	3.13	0.16	114
26	4	5	3.22	0.17	112
27	3	3	2.66	0.17	114
28	5	5	4.16	0.12	114
29	4	5	3.25	0.16	114
30	1	0	1.56	0.17	114
31	3	5	2.86	0.18	114
32	0	0	0.35	0.10	114
33	0	0	0.38	0.10	114
34	3	5	2.80	0.18	114

On the scale, 0 represents "Strongly Disagree," and 5 represents "Strongly Agree". None of these scores are reverse coded

author, after evaluating participants' answers to the first question they answered, created the first 6 categories mentioned above and developed criteria for each. Both authors independently used the coding manual to code the answers for the answers to the first question, consulted about discrepancies in coding, and derived the last three (infrequently occurring) categories. Both authors then independently coded the rest of the answers. The second author compared the codings by the two authors, and determined overall percent agreement (including the initial codings of the

Table 4 Categories of responses to open-ended questions, with initial % agreement and criteria

Awkward	92.5 %	Participant was uncomfortable, awkward, shocked, unprepared for the situation
Negative	88.1 %	Participant expressed disapproval, disgust, shunning, threatening, and avoidance toward the transsexual
Neutral	88.4 %	Participant would treat the transsexual politely, or as he would treat any other person, and/or did not view her as problem or a disruption to normal activities
Positive	93.5 %	Participant expressed concern for the well-being of the MTF, wanted to be nice to her or to befriend her, would go out of his way to get to know her, viewed her with respect, imagined things from her point of view. The student would do more than just treat the transsexual as he would any other person, or was not judgmental
Confused	97.7 %	Participant expressed confusion as to why the transsexual is residing on the floor, or said he would be thinking about the situation
Curious	98.8 %	Participant wanted to know more about the transsexual, was curious, interested or intrigued
Joke	99.3 %	Participant made a joke about the situation
Self	99.0 %	Participant expressed concern about what the presence of the transsexual would mean for others' interpretations of himself
Not sure	99.6 %	Participant did not know what he would do or say in the situation

Percent agreement is based on number of agreements for presence or absence of a category, divided by 114

answers to the first question; see Table 4). Both authors then together re-examined the statements that they disagreed about, and agreed on the coding of most of the statements. However, they continued to disagree about the coding of 23 statements. The second author separated these statements and provided an explanation for his reasoning as to the codes he selected; the first author read through and agreed about most, and explained her reasons for disagreements. Agreement was achieved for all but three statements; all codes given by both authors for these three statements were included.

The answers to the last open-ended question concerning recommendations for how a resident advisor should cope with the presence of a MTF transsexual as a roommate and on the dormitory floor were initially examined by the first author, who created 10 categories to describe the types of responses offered by participants. The second author used these categories to code all answers, and created 8 additional codes. The first author then independently coded the statements using the 18 codes. Initial reliability (70 %) was measured using all 18 codes, dividing number of instances of agreement by the sum of the number of agreements and disagreements. The second author examined the discrepancies, provided clarifications to the categories, and agreed or disagreed with the first author's codes, and then the first author did the same. After this second round of assessment, of the 342 statements, only 26 had some discrepant codes. The second author wrote out the reasoning behind his codes for the first author, and the first author either agreed or disagreed with the coding; in the latter case she provided her reasoning for the codes she chose to the second author. The second author examined the 12 remaining statements containing disagreements, and agreed with the first author's codes for 11 of these; for the remaining statement, both authors' codes were used.

Table 5 Examples of responses about how students would feel or act toward MTF transsexual

Negative	"What you have to be joking, how did I get stuck with it?"	"I feel nauseous"	"I would request a new roommate"
Positive	"I would most likely say 'Hi' in a friendly tone, letting the individual understand that I recognize them, hopefully relieving any tension or anxiety that they might be feeling"	"I would treat the person with respect"	"Friendly and smile at them"
Neutral	"I wouldn't care. I would go about my business"	"Indifference"	"I would try to act as normal as possible"
Awkward	"Very uncomfortable"	"It is just weird too (sic) think of"	"It would be weird simply because I've never dealt with anything like that before"
Confused	"Confusion. Why is this person dressed like this?"	"I would be confused to why a male would dress like a woman"	"I would feel confused not having known this beforehand"
Curious	"Curiousness"	"I would feel like why would you do that in the public restroom?"	"Will be curious and try to know why he is acting that way"
Self-focused	"I think I would dress in more male appropriate clothing and that I would act like a regular male"	"... I wouldn't have a problem with it because I'm comfortable with my own sexuality."	"I would be very nervous because I know everyone is probably judging me..."
Jokes	"Cover my butthole." (when seeing the MTF transsexual in the bathroom)	"Ask them if they lost a bet"	"Is that Ashley? Glad he took my suggestion on toning down that whorish makeup"
Not sure	"I wouldn't know what to do"	"I wouldn't know how to talk to Ashley"	"Don't know"

Preliminary Results

The Factor Analysis discerned 7 factors across the 34 answers on the attitude questionnaire. Examination of the 7 factors suggested that only the first two factors provided useful conglomerations of the participants' answers. Factor 1 accounted for 43.8 % of the variance in the data, and Factor 2 for 8.9 %, so combined the two factors accounted for 52.7 % of the variance. The other 5 factors each accounted for less than 5 % of the variance in the answers, appeared to be based on the answer to just one question, and were ignored. We initially labeled Factor 1 "negative attitude/traditional gender roles," as it appeared to concern negative feelings and attitudes (including discomfort) in relation to MTF transsexuals, and a belief in traditional gender roles. Factor 2 was consistent with our "transgender interest/arousal" (TIA) measure. The questions comprising these factors, and their factor loadings, are presented in Table 1 for Factor 1, and Table 2 for Factor 2.

We used the Factor Analysis to determine which of the statements on the questionnaire to use for the MN, TPh, and TIA measures. We decided to use only

those statements that provided a factor loading of higher than 0.5 (absolute value) for Factor 1 and 2 on the component matrix. We include the factor loadings for all statements in Tables 1 and 2. Note that statement 18 was the only measure of aggressive arousal toward transgender phenomena, so that its exclusion resulted in a TIA measure evaluating only interest in and sexual arousal toward transgender stimuli. Negative factor loadings for answers to a given statement indicated reverse coding in further analyses.

Results

The Sample Overall

The maximum possible MN score was 50; MN scores ($N = 110$) ranged from 1 to 50, $M = 32.1$, $se = 1.2$. The maximum possible TPh score was 70; TPh scores ($N = 113$) ranged from 4 to 70, $M = 45.8$, $se = 1.8$. The maximum possible TIA score was 25; TIA scores ($N = 108$) ranged from 0 to 20, $M = 2.3$, $se = 0.4$.

Influence of Demographics

Both age and religious affiliation influenced MN and TPh scores, consistent with Hypotheses 1a and 1b. Age correlated negatively with MN scores ($r = -0.30$, $n = 110$, $z = -3.17$, $p < 0.05$) and TPh scores ($r = -0.33$, $n = 113$, $z = -3.56$, $p < 0.05$), such that adherence to masculine norms and transphobia decreased in relation to increasing age. Christians, the most frequent religious affiliation, had higher MN scores ($n = 87$, $M = 34.3$, $se = 1.3$) than the rest of the sample ($n = 23$, $M = 23.4$, $se = 2.5$; z (Mann-Whitney U) = 3.66, $p < 0.001$) as well as higher TPh scores ($n = 90$, $M = 49.0$, $se = 1.9$) than the rest ($n = 23$, $M = 33.7$, $se = 3.7$; z (Mann-Whitney U) = 3.39, $p < 0.001$), and thus (consistent with Hypothesis 1b) adhered more to masculine norms and were more transphobic. Consistent with Hypothesis 1b, Christian men ($n = 90$) made more negative statements ($M = 4.2$, $se = 0.3$) than did other men ($n = 24$, $M = 2.6$, $se = 0.5$; z (Mann-Whitney U) = 2.63, $p < 0.01$), and they made fewer neutral statements ($M = 2.5$, $se = 0.2$) than did other men ($M = 3.7$, $se = 0.4$; z (Mann-Whitney U) = 2.35, $p < 0.02$). Contrary to Hypothesis 1b, Christian men ($M = 1.8$, $se = 0.2$) and other men ($M = 2.2$, $se = 0.4$) made comparably few positive statements (z (Mann-Whitney U) = 1.13, ns).

Consistent with Hypothesis 1c, white participants ($n = 96$, $M = 31.9$, $se = 1.3$) did not differ from black participants ($n = 12$, $M = 33.0$, $se = 3.7$) in their MN scores (z (Mann-Whitney U) = 0.005, ns), nor did white participants ($n = 98$, $M = 46.1$, $se = 1.9$) differ from black participants ($n = 13$, $M = 44.2$, $se = 5.2$) in their TPh scores (z (Mann-Whitney U) = 0.47, ns). Consistent with these findings, black and white men did not differ in the frequencies of negative ($M = 3.7$), positive ($M = 1.7$), or neutral ($M = 2.8$) statements (for all three comparisons between black and white men, z (Mann-Whitney U) < 0.95, ns).

Contrary to Hypothesis 1d, participants from lower SES families received lower MN scores ($n = 26, M = 27.1, se = 2.4$) than participants from middle-to-high SES families ($n = 69, M = 34.0, se = 1.5$; z (Mann-Whitney U) = 2.57, $p = 0.01$), and lower TPh scores ($n = 26, M = 40.5, se = 3.5$) than middle-to-high SES participants ($n = 72, M = 48.6, se = 2.1$; z (Mann-Whitney U) = 2.00, $p < 0.05$). (We combined middle and high SES participants, as there were so few with high SES.) Also contrary to Hypothesis 1d, lower SES participants made fewer negative statements ($n = 26, M = 2.9, se = 0.5$) than middle-to-high SES participants ($n = 73, M = 4.3, se = 0.3$; z (Mann-Whitney U) = 2.28, $p = 0.022$), and there were no differences in the number of positive ($M = 2.1$) or neutral ($M = 2.8$) statements made (for both comparisons between low and medium-to-high SES, z (Mann-Whitney U) < 1.31, ns).

All 8 gay men (including the one bisexual) received low MN scores (one a score of 19, the others 9 or less) and low TPh scores (one a score of 37, the rest 23 or below), and 7 of these men provided enough data to create TIA scores (two scores of 16-20, the rest 7 or below). Consistent with Hypothesis 1e, gay men showed less adherence to masculine norms ($n = 8, M = 6.4, se = 3.7$) than heterosexual men ($n = 98, M = 34.2, se = 1.1$; z (Mann-Whitney U) = 4.56, $p < 0.001$), and less transphobia ($n = 8, M = 18.9, se = 6.0$) than heterosexual men ($n = 101, M = 48.3, se = 1.7$; z (Mann-Whitney U) = 3.86, $p < 0.001$). Also consistent with Hypothesis 1e, heterosexual men ($n = 102$) made more negative statements ($M = 4.1, se = 0.2$) than did gay men ($n = 8, M = 0.6, se = 0.9$; z (Mann-Whitney U) = 2.00, $p < 0.05$), fewer positive statements ($M = 1.8, se = 0.2$) than did gay men ($M = 3.25, se = 0.7$; z (Mann-Whitney U) = 3.59, $p < 0.001$), and fewer neutral statements ($M = 2.7, se = 0.2$) than did gay men ($M = 4.25, se = 0.8$; z (Mann-Whitney U) = 2.19, $p < 0.03$).

Both gay and heterosexual men generally had low TIA scores. However, gay men showed more interest and sexual arousal toward transgendered phenomena ($n = 7, M = 7.9, se = 1.3$) than did heterosexual men ($n = 98, M = 1.8, se = 0.4$; z (Mann-Whitney U) = 3.08, $p = 0.002$), consistent with Hypothesis 1e. Further examination via the Mann-Whitney (using $\alpha < 0.05/5$, or 0.01, to avoid Type I error) of the particular statements comprising the TIA score that differentiated gay from heterosexual men indicated that the gay men agreed more than the heterosexual men that they might become sexually aroused by a disrobing cross-dresser, that they would enjoy sex with a consenting feminine cross-dressed man, and that they might try on a cross-dressing roommates' accoutrements (for all three, z (Mann-Whitney U) > 2.86, $p \leq 0.004$). (See also "Relations among MN, TPh, and TIA scores" below, for elaboration of negative relationship between MN and TIA scores, independent of sexual orientation.)

Effect of Sequence of Imagined Contact

To evaluate Hypothesis 2, we performed a MANOVA comparing the MN ($M = 29.7, se = 1.7$) and TPh ($M = 43.6, se = 2.6$) scores of the men ($n = 53$) who began with the scenario describing the least intense level of interaction

(meeting) with a male-to-female transsexual to the (respective) MN ($M = 34.2$, $se = 1.7$) and TPh ($M = 47.9$, $se = 2.5$) scores of the men ($n = 57$) who began with the scenario describing the most intense level of interaction (roommate). Contrary to Hypothesis 2, there were no significant effects of the sequence of scenarios on the MN scores, $F(1, 108) = 3.61$, $p = 0.06$, $\eta^2 = 0.03$, or the TPh scores, $F(1, 108) = 1.47$, $p = 0.23$, $\eta^2 = 0.01$. We also performed a MANOVA to determine the effect of the sequence of imagined scenarios on participants' positive, negative, neutral and awkward responses to the open-ended questions after the scenarios, and again, contrary to Hypothesis 2, found no effect for any of the responses: for all, $F(1, 112) < 1.07$, $p > 0.30$, $\eta^2 < 0.01$.

Relations Among MN, TPh, and TIA Scores

Consistent with Hypothesis 3, MN scores and TPh scores correlated positively ($r = 0.90$, $n = 110$, $z = 15.15$, $p < 0.05$). The fact that MN and TPh scores were combined into one factor on the Factor Analysis indicates that they were highly mutually influential. Indeed, the high correlation between the two scores suggests that the two scores are measuring essentially the same phenomenon. Consistent with Hypothesis 3, both TPh ($r = -0.37$, $n = 107$, $z = -3.97$, $p < 0.05$) and MN scores ($r = -0.39$, $n = 105$, $z = -4.15$, $p < 0.05$) correlated negatively with TIA scores. Note that even the highest TIA scores were rather low, given that the highest possible rating was 25. Seventy-one percent of the men received TIA scores between 0 and 2, and only 9 men (7 of whom were heterosexual) received TIA scores greater than 7 (their range was 10–20).

Although we noted above our finding that gay men considered as a group showed higher TIA scores than heterosexual men, not all gay men showed high TIA scores, and some heterosexual men did show high TIA scores. To further example the relationship between MN, TPh and TIA scores, we used MN and TPh scores as predictor variables in a hierarchical multiple regression analysis assessing their influence on TIA scores. Specifically, we expected MN scores to negatively predict TIA scores, and we expected TPh scores to mediate this association between MN scores and TIA scores. Consistent with Hypothesis 3, in the first block, MN scores were significantly negatively associated with TIA scores ($\beta = -0.39$, $p < 0.001$, $R^2 = 0.13$, $p < 0.001$); but contrary to Hypothesis 3, in the second block, TPh scores were not significantly associated with the TIA scores ($\beta = -0.09$, $p = 0.67$, $\Delta R^2 = 0.02$, $p = 0.14$). Apparently, independent of transphobia, lower adherence to masculine norms allows for greater interest in and sexual arousal toward transgender phenomena, and greater adherence to masculine norms precludes any such engagement. Examination of correlations between MN scores and the particular statements comprising the TIA scores indicated significant negative correlations (from -0.284 to -0.366 , all $p < 0.004$) for the questions about becoming sexually arousing by a disrobing male cross-dresser, enjoying sex with a postoperative transsexual or a feminine man dressed as a woman, and trying on a cross-dressing roommate's paraphernalia.

Men's Responses to Open-Ended Questions

The kinds of responses varied according to the open-ended questions asked and the specific scenarios, but overall, positive, negative, neutral and awkward statements were frequent, self-focused responses, jokes, and uncertainty about what to do (“not sure”) were rare, and confused and curious responses were infrequent. Thus, our initial analyses focused on positive, negative, neutral, and awkward responses.

We used MN and TPh scores as predictor variables in a hierarchical multiple regression analysis assessing the overall frequency of responses coded as positive, negative, neutral, and awkward (each assessed separately). Specifically, we expected MN scores to predict the frequencies of the responses (negatively for positive and neutral statements, positively for negative and awkward statement), and TPh scores to mediate this association between MN scores and the frequencies of the responses. Both MN and TPh scores correlated as predicted with frequencies of positive, neutral and negative statements (MN scores and positive statements, $r = -0.39, p < 0.01$; negative statements, $r = 0.66, p < 0.01$; neutral statements, $r = -0.54, p < 0.01$; TPh scores and positive statements, $r = -0.50, p < 0.01$; negative statements, $r = 0.70, p < 0.01$; neutral statements, $r = -0.58, p < 0.01$). Both MN and TPh were uncorrelated with awkward statements (both $r < 0.15, ns$), indicating that any awkwardness was experienced by the men regardless of their level of adherence to masculine norms and transphobia. Thus, awkward statements were dropped from further analysis. Consistent with Hypothesis 4, in the first block, MN scores were significantly positively associated with the frequencies of negative responses ($\beta = 0.66, p < 0.001, R^2 = 0.44, p < 0.001$), and significantly negatively associated with the frequencies of both positive responses ($\beta = -0.39, p < 0.001, R^2 = 0.15, p < 0.001$) and neutral responses ($\beta = -0.54, p < 0.001, R^2 = 0.30, p < 0.001$); and in the second block, TPh scores were significantly positively associated with the frequencies of negative responses ($\beta = 0.69, p < 0.001, \Delta R^2 = 0.09, p < 0.001$), and significantly negatively associated with the frequencies of both positive responses ($\beta = -0.71, p < 0.001, \Delta R^2 = 0.10, p < 0.001$) and neutral responses ($\beta = -0.56, p < 0.001, \Delta R^2 = 0.06, p < 0.002$). In addition, in the second block, the association between MN scores and negative ($\beta = 0.05, ns$), positive ($\beta = 0.25, ns$), and neutral ($\beta = -0.04, ns$) responses fell below significance. The effect sizes for the influence of MN and TPh scores on the frequency of negative, positive and neutral responses are quite large.

Men's Responses to the Particular Situations

We compared the frequencies of responses in each category across situations for each of the first three questions after each scenario, using the Cochran Q test, $\alpha < 0.05$ (see Tables 6, 7, and 8). In response to the first question, “While imagining this situation, how and what do you feel?” (see Table 6), most men felt awkward across all three situations; otherwise all responses were for fewer than 50 % of the men. Overall, responses were consistent with Hypothesis 5: more men felt positive and curious, and fewer felt awkward, in the meeting than in the bathroom or roommate situations; more men felt negative, and fewer felt neutral or

Table 6 Frequency of responses to first question, “While imagining this situation, how and what do you feel?,” across the three situations

	Meeting	Bathroom	Roommate	Cochran Q Chi-square
Positive	22	5	11	16.52*
Negative	32	29	46	8.23*
Neutral	22	24	10	10.75*
Awkward	58	72	72	6.22*
Confused	21	22	14	4.38
Curious	10	5	3	7.80*
Self	2	3	4	0.75
Joke	1	4	1	6.00*
Not sure	6	2	1	5.25

* $p < .05$

confused, in the roommate situation than in the meeting or bathroom situation; and more men (though only a few) told a joke in relation to the bathroom situation than in the meeting or roommate situation. Self-focused comments were rare across all three situations, contrary to Hypothesis 5.

In response to the second question, “How do you think you would act in this situation?” (see Table 7), most men thought they would act in a negative manner in the roommate situation, and about half of the men thought they would act in a neutral manner in the bathroom and meeting situations. All other responses were for fewer than 50 % (i.e., fewer than 57) of the men. Overall, responses were relatively consistent with Hypothesis 5: more men thought they would act in an awkward and negative manner, and fewer thought they would act in a neutral manner, in the roommate situation compared to in the meeting or bathroom situation; and more men thought they would be confused, and fewer thought they would act in a positive way, in the bathroom situation compared to in the meeting or roommate situation. Men made a joke about how they would act only for the bathroom situation. No self-focused comments were made, contrary to Hypothesis 5.

In response to the third question, “How do you think you would act in relation to [the transsexual]?” (see Table 8), most men thought they would act positively to the

Table 7 Frequency of responses to second question, “How do you think you would act in this situation?,” across the three situations

	Meeting	Bathroom	Roommate	Cochran Q Chi-square
Positive	21	8	28	13.73*
Negative	51	48	64	7.61*
Neutral	55	59	34	19.32*
Awkward	14	13	25	6.65*
Confused	3	13	3	11.76*
Curious	5	4	2	1.40
Self	0	0	0	—
Joke	0	4	0	8.00*
Not sure	0	2	3	3.50

* $p < .05$

Table 8 Frequency of responses to third question, "How do you think you would act in relation to the transsexual?," across the three situations

	Meeting	Bathroom	Roommate	Cochran Q Chi-square
Positive	35	24	60	41.67*
Negative	60	61	45	9.45*
Neutral	38	42	33	2.00
Awkward	8	17	28	15.05*
Confused	0	1	0	2.00
Curious	0	2	2	0.00
Self	2	0	1	2.00
Joke	2	2	1	0.40
Not sure	6	3	6	1.64

Further analysis of *Positive* for Question 3 using Wilcoxon Signed Ranks Test revealed all three comparisons are different ($z \geq 2.40$, $p < 0.05$). The roommate situation showed higher frequencies for *Awkward* than bathroom and meeting situations (based on Wilcoxon)

* $p < .05$

transsexual in the roommate situation, and negatively in the meeting and bathroom situations (both findings surprising in relation to Hypothesis 5). Otherwise, all responses were for fewer than 50 % of the men. Overall, more men thought they would act positively and awkwardly toward the transsexual in the roommate situation than in the meeting or bathroom situation, and more men thought they would act positively toward the transsexual in the meeting than in the bathroom situation. More men thought they would act negatively toward the transsexual in the meeting and bathroom situation than in the roommate situation.

Men's Recommendations as a Resident Advisor

The fourth question after each scenario asked the participants to imagine themselves as a resident advisor, and make recommendations to help men in the dorms deal with situations such as those posed in the scenarios. In an effort to help future resident advisors, we wondered what solutions the men would offer. The 18 categories of recommendations, their frequency of occurrence, and examples of each, are presented in Table 9. (Note that any given recommendation received from 1 to 3 codes.) The most frequent recommendation was to discuss the situation with the transsexual, the men, or both; discussion could occur one-on-one, or in a group format. The next two most frequent recommendations were to create alternative arrangements (usually finding the transsexual or her assigned roommate a different room, or offering alternative bathroom arrangements), and to offer advice to be respectful of the transsexual and treat her in a non-mean or pleasant manner. The next most frequent recommendation was to tell everyone to act naturally or normally. Diminishing in frequency were recommendations for the men to be understanding or open-minded toward the transsexual, for them to get to know or socialize with the transsexual, and for the men to become educated (either by simply

Table 9 Categories and frequencies of recommendations (and number [*n*] of individuals making recommendations) for resident advisor, with examples (corrected for typos)

Category	Frequency (<i>n</i>)	Recommendation (followed by examples)
<i>Connect</i>	91 (<i>n</i> = 54)	Discuss with the residents, often including the transsexual, either in groups or one-on-one Examples: "Talk to them in a meeting"; "I would talk to them during my one-on-one..."; "all the males in the dorm to be informed of this situation"
<i>Control</i>	72 (<i>n</i> = 53)	Create alternative arrangement Examples: "I would try and find someone who is open minded of the situation to live with Karen"; "Have them leave if they weren't comfortable"; "If there's someone that feels uncomfortable about this, then to either wait or use the public bathroom within the dorm"
<i>Connect</i>	71 (<i>n</i> = 44)	Be respectful or pleasant toward transsexual, treat her as you treat others Examples: "be respectful"; "I would treat them with the same respect as any other female"; "I would recommend everyone in the dorms to be mature and treat the person like they would anyone else"
<i>Control</i>	52 (<i>n</i> = 38)	Act naturally or normally, or ignore situation; ignoring transsexual is separate recommendation Examples: "just pretend Karen is just another guy and go on with their usual routines"; "...deal with it"; "To be cool and relax, he is still a guy"
<i>Connect</i>	43 (<i>n</i> = 34)	Be understanding, accepting, or open-minded, perhaps taking the point of view of transsexual Examples: "Just accept people for who they are because you cannot change them"; "I would tell them to keep an open mind"; "Remind them of how hard it is for the individual (Karen), getting as much sympathy for the situation as possible"
<i>Connect</i>	27 (<i>n</i> = 18)	Get to know or get together with transsexual, don't ostracize her Examples: "I would tell them to get to know the MTF..."; "have them talk to each other and discuss their backgrounds, ... and find things they have in common"; "...have a feminine dress up day where all must participate"
<i>Control</i>	25 (<i>n</i> = 19)	Make rules of conduct for men, transsexual, or both Examples: "not to harass the individual"; "behave as if it were a co-ed bathroom"; "Tell them that if Ashley does anything that's out of hand to report it to me" (also coded as address situation only as it arises)
<i>Connect</i>	20 (<i>n</i> = 14)	Educate residents or self, make counseling available Examples: "diversity activities" (also coded as get to know or get together with transsexual); "I would just have them ... learn the real facts about people like Ashley"; "I think an education session addressing all aspects of these situations would be best"
<i>Ignore</i>	17 (<i>n</i> = 12)	Address situation only as it arises Examples: "I would recommend nothing until an issue arose"; "I would address the issue privately if any arose"; "I would recommend nothing until a issue is brought up, then deal with it"
<i>None</i>	17 (<i>n</i> = 12)	Ignore, avoid, ostracize, or laugh at the transsexual Examples: "[If getting along doesn't work,] then don't talk to that person at all"; "Tell them to not pay any attention to them"; "Examine room [containing transsexual], laugh..."; "Try to avoid them if they offend you"
<i>Connect</i>	12 (<i>n</i> = 12)	Try to do something positive or appropriate for the transsexual without specifying how Examples: "make sure no one bothers the said individual"; "I would do my best to protect anybody because there could be problems made"; "I think I'd probably just make sure the roommate and Karen were both comfortable"

Table 9 continued

Category	Frequency (n)	Recommendation (followed by examples)
<i>None</i>	12 (n = 9)	Not sure what to do (not combinable with any other recommendation) Examples: "I would not know what to do in that situation to be honest"; "No idea"; "I'm not sure"
<i>Ignore</i>	8 (n = 7)	Do nothing as resident advisor in relation to the situation (usually specified that transsexual being in the dorm is not viewed as a problem) Examples: "Nothing. Wouldn't it make Ashley feel segregated if I made coping recommendations with the other males because he is a transsexual?"; "Nothing special, regardless of their appearance, they are still a person, why would I call them out in front of everyone?"; "I wouldn't recommend much because he hasn't done anything wrong"
<i>Connect</i>	6 (n = 6)	Leave it to the transsexual to tell others, consult with transsexual before taking action Examples: "[If asked,] I would tell them it is a personal matter and it is up to Ashley if he/she wants to"; "I would talk to Ashley and ask what he felt comfortable with, if he wanted to try and meet the other people on the floor..."; "I would ask her if it was ok to open the floor for any discussion..."
<i>None</i>	5 (n = 4)	Make a joke Examples: "smoke a fat ass blunt"; "Yell 'Olly olly oxen free' before entering [bathroom] to make sure the transsexual isn't in there"; "think more positively...: At least the roommate won't be using your things"
<i>Ignore</i>	4 (n = 3)	Students should wait before making any decision Examples: "Wait a week, then decide"; "That it is only for this year..."; "Tell them to wait until he went through surgery and could live on a girl's floor"

explaining to them what a transsexual is, or by suggesting a class or a counseling session about transsexuality). Recommendations to ignore the transsexual, do something (unspecified) to support her, or confer with her before taking action in relation to her were infrequent. Although most of the suggested recommendations were to some degree supportive, some were not; however, being explicitly hostile to or ostracizing the transsexual were mentioned rarely. Recommendations that suggested moving the transsexual to another dorm or room, or ignoring her, are likely to be as painful to the transsexual as they would be to anyone (see Williams and Carter-Sowell 2009).

In order to evaluate the influence of men's adherence to masculine norms on their ideas about what to recommend when men and a MTF transsexual are to share their dormitory space, we codified the coded recommendations into three groupings: making a connection at some level between the men and the transsexual or treating the transsexual positively, controlling the situation or asking the men to control themselves, and ignoring the situation (see Table 9). (Note that advising the men to ignore the transsexual occurred rarely and was not included in this last category, which focused on a denial that any problem existed or a postponement of taking any action on the part of the men or the resident advisor.) Most men ($n = 92$) provided at least one recommendation to make even a minimal connection with the transsexual, most men ($n = 81$) offered at least one recommendation to control the

situation, and few men ($n = 22$) provided at least one recommendation to ignore the situation. We summed across all scenarios the number of instances of each recommendation under each grouping to provide a measure of each. Scores for making a connection ranged from 0 to 7, and those for the other two categories ranged from 0 to 3. In relation to Hypothesis 6, we viewed making a connection as related to being nurturant, and the other two categories as related to control: the first as exhibiting control, and the second as postponing it. Thus, we expected that those showing greater adherence to masculine norms to suggest less often making a connection and ignoring the situation, and to express more often control toward the situation. As expected, MN scores were negatively correlated with frequencies of making a connection ($r = -0.45, p < 0.01$) and ignoring the situation ($r = -0.19, p < 0.05$), and positively correlated with frequencies of exhibiting control ($r = 0.47, p < 0.01$).

Discussion

Among the men in our university sample, satisfying their gender role and expressing negativity toward transsexuals (transphobia) went hand-in-hand: adherence to masculine norms (MN) and transphobia (TPh) were so highly intercorrelated as to be measuring one attitude. Such a finding is hardly surprising: as Blazina (2008) and others (e.g., O’Neil et al. 1986) have noted, in American culture, to be a man is to avoid being feminine, and a man who actively chooses to be feminine would be disturbing to many men in relation to how intensely they adhere to masculine norms. Several of the statements used in the MN score concerned cross-dressing men and feminine men, which our participants may not have elaborately differentiated from MTF transsexuals, thereby supporting similar responses to statements used in both MN and TPh scores. Because of the high correlation between MN and TPh scores, it was not surprising that the hierarchical multiple regression analysis (employing MN scores as the predictor variable, and TPh scores as the mediator variable) indicated that both TPh and MN scores predicted the frequencies of negative, positive and neutral statements, with TPh acting as a mediator between MN scores and these frequencies. The large effect sizes associated with both MN and TPh scores in relation to these frequencies indicate a strong association between them. Just as one would expect, men who showed greater adherence to masculine norms and transphobia made more negative responses and fewer positive and neutral responses.

We predicted that men who started by answering questions about the scenario with the most intense level of contact (followed by decreasing levels of contact) with the MTF transsexual would be more negative overall toward the imagined interactions with the transsexual, more transphobic, and more adherent to masculine norms, than would the men who started by answering questions about the scenario with the least intense level of contact (followed by increasing levels of contact). The results showed that there was no effect of the sequence of imagined contacts on any of the participants’ responses. Any number of explanations can be promoted as to why the sequence of presentation of our stimulus materials did not provoke different

responses in the two groups. It may be, judging from the similarity in responses to open-ended questions, that having a MTF transsexual as a roommate is just as disconcerting for the typical man in our sample as seeing one at a meeting in his residence hall. The fact that participants answered questions on their own, without any way to talk about their responses with someone, may have influenced them to think less about their answers than if they had had to interact with others (as did participants in the studies by Pollack 1971 and Olson and Claiborn 1990). Studies supporting the idea that imagined contact with members of a group toward whom one experiences negativity will create more positive attitudes asked participants to imagine a positive contact experience (e.g., Crisp and Turner 2009), whereas we simply had them imagine having a contact experience. It seems likely that our study failed to influence attitudes toward the MTF transsexual in part because we did not provide enough imaginative positive involvement (though see Bigler and Hughes 2010 for a discussion of whether or not any form of imaginative contact actually effects prejudice reduction). Two other potentially promising methods for influencing men to have a more positive attitude toward a MTF transsexual, suggested by Paluck and Green (2009), are presenting more information about the transsexual person's point of view, and finding a way to allow men to recognize that they and the transsexual are both members of a common group (they are both human, college students, sexual beings, Christians, film lovers, football addicts). Both of these methods, by making the men experience the transsexual as more like themselves and as more of a person than a category, may induce empathy toward her (Mitchell 2008).

Although development of empathy toward members of a group is important in reducing prejudice toward them, our findings suggest that attempts to influence men to be less transphobic may require having them reconsider our culture's masculine norms (see Norton 1997). The fact that, with increasing age, college men's adherence to masculine norms and their transphobia diminished suggests that just such a reconsideration occurs through men's lifelong experiences (Fischer & Narus 1981; Moreland 1980), though one can imagine that outside the college context the reverse may be true. That reconsideration of one's values and interaction with individuals from a devalued group seem essential to eliminating prejudice has been evident at least since Mark Twain's (1884) *Adventures of Huckleberry Finn*, in which Huck has to decide whether he would rather support the Christian values he had been taught and return the slave Jim, Huck's friend, to a slaveholder, or go against these Christian values, and thereby burn in hell, by helping Jim to escape. After reflecting on his positive shared experiences with Jim, Huck chooses to go to hell rather than turn Jim over. Actual contact and shared positive experiences between men and transsexuals are likely to be necessary for men to become aware of the need for revision in their values.

Contemporary fundamentalist Christian men may find that toward transsexuals they are in a situation analogous to Huck's with Jim. Fundamentalist Christian teachings stress traditional gender roles. The adherence to traditional masculine norms and transphobic attitudes espoused by our Christian male participants living in the "Bible belt" of the US are predictable from fundamentalist Christians' dislike

of gay men and transsexuals (Claman 2007; Dudley and Mulvey 2009; Hill and Willoughby 2005; Nagoshi et al. 2008), and seem to be direct outgrowths of the sexually conservative, traditional, and anti-gay agenda of American fundamentalist Christians (Greslé-Favier 2009) and early training of fundamentalists in us-them differentiation that leads easily to prejudice against any deviation (Altemeyer 2003). Whether fundamentalist Christians will continue to follow doctrine in devaluing transsexuals and other people who do not conform to their traditions, or will reconsider their devaluing attitudes, remains open. Note that our convenience sample of Christians included a variety of denominations, but most designated simply as "Christian."

Our finding no black/white differences in adherence to masculine norms or transphobia is consistent with evidence that black and white college students from the Midwestern US show comparable attitudes toward gay men and lesbians (Jenkins et al. 2009). A college education may influence both black and white male student participants to question and reformulate some negative attitudes, as greater education predicts greater tolerance and less homophobia (Dejowski 1992; Ohlander et al. 2005). Note, however, that both white and black participants in our sample were relatively transphobic, on average providing for each statement a rating of 3.3 (out of 5).

SES status influenced transphobia in a direction inconsistent with our expectations: college men from families with lower SES were less transphobic and showed less adherence to masculine norms than the men from middle-to-high SES families. Perhaps being less economically advantaged college students, as well as being a comparative out-group in relation to preponderantly middle-class students, may increase empathic responding and direct concerns away from policing oneself and others in relation to masculinity. Random samples from any groups are, of course, needed to determine population-level prejudices.

Cisgender men tend to be uncurious about transsexuality, couching any expressed interest as clinical or scientific rather than personal (Schilt and Westbrook 2009). The men in our sample only infrequently expressed curiosity about the transsexual, even in the meeting situation where it was expected to be (and was) more prevalent. Perhaps any expression of curiosity was too threatening for most of the men in that it might raise questions about the men's masculinity. The greater interest in and sexual arousal toward transgendered phenomena (represented by the TIA score) by men with lower adherence to masculine norms and lesser transphobia is, then, unsurprising (see also Gerhardstein and Anderson 2010). Note, however, that all the TIA scores were low, indicating little overall interest in transgender phenomena (e.g., trying on women's clothing) and sexual arousal toward a transgendered man (e.g., a man in or coming out of women's clothing). The fact that gay men expressed interest in and sexual arousal toward transgender phenomena seems surprising, given gay men's usual interest in men and their usually concomitant masculinity, but this apparent discrepancy can be easily understood: gay men's TIA scores generally indicated their greater openness, compared to the heterosexual men, to trying on a crossdresser's clothing and engaging in sex with a man in women's clothing, though not to having sex with a postoperative MTF transsexual. Men with lower MN scores (which included the gay men as well as heterosexual men) showed

responses similar to those of the gay men, as well as more interest in having sex with a postoperative MTF transsexual (i.e., a woman with a surgically created vagina). Lower MN scores, not surprisingly, apparently allowed for slightly greater openness to exploring nontraditionally gendered experiences.

The influence of the situation in which the men imagined meeting the transsexual was generally consistent with our hypotheses. One unexpected discovery was that more than half of the men expected to act positively when interacting directly with the transsexual as a roommate, even though they expected to feel and act negatively and awkwardly in the situation. One view is that, in the roommate situation, the men experienced the transsexual as a person who deserved to be treated well even though they did not like her assignment as their roommate. (The finding that awkwardness was unrelated to either adherence to masculine norms or transphobia supports this interpretation.) An alternative interpretation (suggested by a reviewer) is that, unlike in the other situations that were more public, the men in the roommate situation were in a private setting, such that they did not need to emphasize their masculinity through negativity toward the transsexual (see Franklin 2004). Interestingly, when imagining themselves as resident advisor, most of the men offered at least one recommendation of making a connection with the transsexual, however minimal.

Although we expected the men to be concerned about how other men would view them due to their interaction with a transsexual in the roommate and bathroom situations (see Gerhardstein and Anderson 2010), our participants rarely (12 times total) expressed any such concern. Perhaps because they had been assigned (imaginatively) to be the transsexual's roommate, rather than actively choosing to be, made men unconcerned about any implications in relation to themselves (see Sigelman et al. 1991, for evidence in relation to a similar idea: a man's being assigned to vs. choosing a gay roommate). Alternatively, the possibilities imagined may have been simply too surprising to make the men self-conscious.

The men provided no strikingly novel recommendations for how men and MTF transsexuals can cope with sharing space in their dormitory (compare to Conway 2007; National Student Genderblind 2010; Sanlo et al. 2002; Transgender Law & Policy Institute 2012). However, the men mentioned several positive approaches to coping with the situation, including measures to ensure that the transsexual was treated well and fairly. Indeed, most recommendations suggested a positive approach to the situation; few penalized or ostracized the transsexual. It was encouraging that most men recommended education and discussion, many suggested respecting, getting to know, or trying to understand the transsexual, and some recommended simply accepting that the transsexual was going to be sharing space with the men. Not a single man suggested making dorm spaces open to both men and women, thereby obviating the entire problem, but this solution would have been outside the problem space of what a resident advisor could do.

Limitations

Our research was limited to a convenience sample of college men most of whom likely did not share a common living space. It would be useful to replicate the study

with men who share one floor of a dormitory, asking them to imagine the MTF transsexual in this space and how they think they and their fellows would cope with this situation; the results could then be used to discuss the issues that arose for these men, to determine if this dormitory space would be hospitable to MTF transsexuals and, if not, how to make it so. Future research should examine the attitudes of female students to living with a female-to-male transsexual to see if women's adherence to traditional gender roles is important in their interactions with transsexual individuals. Our sample is hardly generalizable, consisting of a nonrandomly selected group of (purportedly) mostly young, white, Christian, heterosexual men from families in the middle SES bracket. Although we have no reason to believe that the bulk of our participants described themselves inaccurately, any information from an online sample can always be open to question.

The fact of using the word "transsexual" rather than "transgendered person" may have influenced our findings, as one reviewer noted. Terminology may influence interpretation, as in the recent poll indicating that more people support having "gay men and lesbians" serve in the military than support having "homosexuals" do so (CBS News/New York Times Poll 2010). However, we were specifically interested in how male students dealt with having a MTF transsexual—a person contemplating a sex change from male to female—in their dormitory space. Such a person may be viewed quite differently than other transgendered men, such as a feminine man, or a cross-dressing heterosexual man. Given the fact that transsexuals, unlike feminine or cross-dressing heterosexual men, often find it difficult to be given appropriate housing as students, the issues raised specifically for transsexuals in dormitories needed to be evaluated.

Conclusion

Life can be difficult for transsexual and transgendered people (e.g., see National Gay and Lesbian Task Force 2011; Pomerantz 2010; Pusch 2005; Schilt and Westbrook 2009). By engaging in this research, we hope to provide information that will be used to create a more supportive environment for both men and transsexuals seeking to obtain a college degree (see Ellis 2009). Cisgender men may soon need to cope with sharing dormitory space with MTF transsexuals (Pomerantz 2010). It is in many ways remarkable that the men in our sample offered so many solutions for living with a MTF transsexual that were supportive and open to the possibility. We hope that policy makers listen. Providing evidence of the perspectives of men who may, unwittingly, be required to share living space with MTF transsexuals should allow policy makers to provide a collegial college atmosphere that allows all students to thrive.

Acknowledgments We greatly appreciate the critical, insightful, and in-depth commentaries from three anonymous reviewers, a helpful statistical consultation from Jonathan Gore, and the thoughtful responses from our participants.

Appendix

A male-to-female (MTF) transsexual is a man who believes he is really a woman and wishes to live out his life as a woman, which can be achieved through sexual reassignment surgery. However, before a MTF transsexual can achieve his goal of becoming a woman through surgery, he must live full time as a woman by maintaining a feminine appearance (e.g., wearing feminine clothing, attempting to speak in a higher pitch, etc.) for an extended amount of time. Until surgical sexual reassignment has been achieved, the MTF transsexual must continue to use public spaces (e.g., restrooms, locker rooms, residence halls, etc.) designated for his biological sex, male.

You will be presented with three scenarios (one at a time) about a MTF transsexual, and some questions evaluating your responses to each scenario. Carefully read each scenario and envision yourself coming in contact with a MTF transsexual in the following spaces. Once you have read over a scenario, answer the questions to the best of your ability. Please answer as fully as possible. After reading and responding to all three scenarios, you will be asked to answer a questionnaire about yourself and your attitudes.

Scenario 1

Imagine this is your first day moving into the residence halls, keeping in mind that the other male students will be living in close quarters with you for the rest of the year. You will frequently pass these individuals in the hallway, at the water fountain, or even in the restroom. Later that evening when your floor has its introductory meeting, you scan around the circle and notice that a student who appears to be female will be living on the male only floor. When it comes time for the student to introduce himself, in a high-pitched voice, he says his name is Ashley and that he enjoys hanging out with friends and shopping. The student is wearing lightly colored pink lipstick and eye shadow with his hair pulled back in a ponytail. Also, he is wearing shorts with a feminine pink t-shirt and black flip-flops. You realize this individual is male since he was assigned to a male floor; however, he outwardly presents himself as female.

1. While imagining this situation, how and what do you feel?
2. How do you think you would act in this situation?
3. How do you think you would act in relation to Ashley?
4. Imagine that, instead of the person in the story, you were a Resident Advisor in the dorm in the scenario. What would you recommend be done to help males in the dorms in dealing with situations like this?

Scenario 2

Imagine your first evening in the residence hall and you and your friends have plans to go out for the night. Since it is your first night at college, you want to make sure to look your best. Immediately you rush to the bathroom, which is a community

bathroom and is the only one available for all male residents on that floor to use, and take a shower and shave. As you are standing at the mirror in your towel shaving, you are aware that someone walked in and went to the back bathroom stall. You hear the usual sounds of urination. You don't think much about it until the individual walks out of the stall, and you notice he is dressed as a woman. He is wearing subtle makeup (lipstick, eye shadow, blush, etc.) and a long patterned skirt with a soft, pink blouse and high heels. Unsure if the individual is in the right bathroom, you take a hard stare and notice the stubble on the individual's face and the hard masculine jaw line. You finally realize this individual is really a man, but presents himself in a feminine appearance.

1. While imagining this situation, how and what do you feel?
2. How do you think you would act in this situation?
3. How do you think you would act in relation to this person?
4. Imagine that, instead of the person in the story, you were a Resident Advisor in the dorm in the scenario. What would you recommend be done to help males in the dorms in dealing with situations like this?

Scenario 3

Imagine your first day moving into the residence hall, the excitement of finally meeting your roommate for the first time and worrying that you won't have anything in common. When you arrive, you open your room to realize that you are the first one there. Excitedly, you hurry and unpack your things and walk around to meet some of the other guys you will be living with for the rest of the year. A few hours later when you return, you notice your new roommate had been there and dropped off his belongings. However, as you look around the room you notice some unusual things. His bed is made with a colorful red quilt and throw pillows, there are inspirational posters hanging up and pictures of family and friends, and his clothes that are lying on the bed appear to be feminine. As you curiously take a closer look, you notice he has dresses hanging in the back of his closet, high heels, and a bag of makeup and jewelry sitting on his dresser. Confused about what you are seeing, you wait for your new roommate to return. When your roommate enters the room, he introduces himself in a high-pitched voice as Karen. Karen appears friendly but perhaps somewhat shy, and informs you he is pleased to meet you and looks forward to sharing the room with you for the rest of the year. As you stare at your new roommate, you realize he is dressed in a white summer skirt with a black tank top. You realize that Karen will be living in close quarters with you, and is male, but dresses and acts like a female.

1. While imagining this situation, how and what do you feel?
2. How do you think you would act in this situation?
3. How do you think you would act in relation to Karen?
4. Imagine that, instead of the person in the story, you were a Resident Advisor in the dorm in the scenario. What would you recommend be done to help males in the dorms in dealing with situations like this?

References

Adams, H. E., Wright, L. W., Jr., & Lohr, B. A. (1996). Is homophobia associated with homosexual arousal? *Journal of Abnormal Psychology, 105*, 440–445.

Allport, G. W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.

Altemeyer, B. (2001). Changes in attitudes toward homosexuals. *Journal of Homosexuality, 42*, 63–75.

Altemeyer, B. (2003). Why do religious fundamentalists tend to be prejudiced? *International Journal for the Psychology of Religion, 13*, 17–28.

Anderson, E. (2008). "Being masculine is not about who you sleep with...": Heterosexual athletes contesting masculinity and the one-time rule of homosexuality. *Sex Roles, 58*, 104–115.

Antoszewski, B., Kasielska, A., Jedrzejczak, M. J., & Kruk-Jeromin, J. (2008). Acceptance of transsexualism among university students from Lódz [In Polish with English summary]. *Psychiatria Polska, 42*(1), 125–134.

Bailey, J. M. (2003). *The man who would be queen*. Washington, DC: Joseph Henry Press.

Baker, J. G., & Fishbein, H. D. (1998). The development of prejudice toward gays and lesbians by adolescents. *Journal of Homosexuality, 36*, 89–100.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1182.

Beemyn, B., Curtis, B., Davis, M., & Tubbs, N. J. (2005). Transgender issues on college campuses. *New Directions for Student Services, 111*, 49–60.

Bem, S. L. (1981). Gender schema theory: A cognitive account of sex-typing. *Psychological Review, 88*, 354–364.

Bergling, T. (2001). *Sissophobia*. New York: Harrington Park Press.

Bernat, J. A., Calhoun, K. S., Adams, H. E., & Zeichner, A. (2001). Homophobia and physical aggression toward homosexual and heterosexual individuals. *Journal of Abnormal Psychology, 110*, 179–187.

Bigler, R. S., & Hughes, J. M. (2010). Reasons for skepticism about the efficacy of simulated social contact interventions. *American Psychologist, 65*, 132–133.

Blashill, A. J., & Powlishta, K. K. (2009a). Gay stereotypes: The use of sexual orientation as a cue for gender-related attributes. *Sex Roles, 61*, 783–793.

Blashill, A. J., & Powlishta, K. K. (2009b). The impact of sexual orientation and gender role on evaluations of men. *Psychology of Men & Masculinity, 10*, 160–173.

Blazina, C. (2008). *The secret lives of men: What men want you to know about love, sex, and relationships*. Deerfield Beach, FL: HCI Books.

Bosson, J. K., Prewitt-Freilino, J. L., & Taylor, J. N. (2005). Role rigidity: A problem of identity misclassification? *Journal of Personality and Social Psychology, 89*, 552–565.

Brown, R. D., Clarke, B., Gortmaker, V., & Robinson-Keiling, R. R. (2004). Assessing the campus climate for gay, lesbian, bisexual, and transgender (GLBT) students using a multiple perspectives approach. *Journal of College Student Development, 45*, 8–26.

Cavanagh, S. L. (2010). *Queering bathrooms: Gender, sexuality, and the hygienic imagination*. Toronto: University of Toronto Press.

CBS News/New York Times Poll (2010). *Gays in the military*. Retrieved from http://www.cbsnews.com/htdocs/pdf/poll_021110_2pm.pdf?tag=contentMain;contentBody.

Ceglian, C. M. P., & Lyons, N. N. (2004). Gender type and comfort with cross-dressers. *Sex Roles, 50*, 539–546.

Claman, E. E. (2007). *An examination of the predictors of attitudes toward transgender individuals*. Unpublished doctoral dissertation, The Ohio State University, Columbus, OH.

Connell, R. W. (2005). *Masculinities* (2nd ed.). Berkeley: University of California Press.

Conway, L. (2007). *How colleges and universities can improve their environments for TG/TS students*. Retrieved from <http://www.lynnconway.com>.

Cooper, P., & Oldenziel, R. (1999). Cherished classifications: Bathrooms and the construction of gender/race on the pennsylvania railroad during world war II. *Feminist Studies, 25*, 7–41.

Crisp, R. J., & Turner, R. N. (2009). Can imagined interactions produce positive perceptions? Reducing prejudice through simulated social contact. *American Psychologist, 64*, 231–240.

Day, K., Stump, C., & Carreon, D. (2003). Confrontation and loss of control: Masculinity and men's fear in public space. *Journal of Environmental Psychology, 23*(3), 311–322.

Dejowski, E. F. (1992). Public endorsement of restrictions on three aspects of free expression by homosexuals: Socio-demographic and trends analysis 1973–1988. *Journal of Homosexuality*, 23, 1–18.

Devor, H. (1993). Sexual orientation identities, attractions, and practices of female-to-male transsexuals. *Journal of Sex Research*, 30, 303–315.

Dovidio, J. F., Eller, A., & Hewstone, M. (2011). Improving intergroup relations through direct, extended and other forms of indirect contact. *Group Processes & Intergroup Relations*, 14, 147–160.

Drummond, M. (2011). Men's bodies throughout the life span. In C. Blazina & D. S. Shen-Miller (Eds.), *An international psychology of men: Theoretical advances, case studies, and clinical innovations* (pp. 159–188). New York: Routledge.

Dudley, M. G., & Mulvey, D. (2009). Differentiating among outgroups: Predictors of congruent and discordant prejudice. *North American Journal of Psychology*, 11, 143–156.

Ellis, S. J. (2009). Diversity and inclusivity at university: A survey of the experiences of lesbian, gay, bisexual and trans (LGBT) students in the UK. *Higher Education*, 57, 723–739.

Ellis, A., & Vasseur, R. B. (1993). Prior interpersonal contact with and attitudes towards gays and lesbians in an interviewing context. *Journal of Homosexuality*, 25(4), 31–46.

Faludi, S. (1994). The naked Citadel. *New Yorker*, 70(27), 62–81.

Fischer, J. L., & Narus, L. R. (1981). Sex-role development in late adolescence and adulthood. *Sex Roles*, 7, 97–106.

Fondas, N. (1997). Feminization unveiled: Management qualities in contemporary writings. *Academy of Management Review*, 22, 257–282.

Franklin, K. (2000). Antigay behaviors among young adults. *Journal of Interpersonal Violence*, 15, 339–362.

Franklin, K. (2004). Enacting masculinity: Antigay violence and group rape as participatory theater. *Sexuality Research and Social Policy*, 1, 25–40.

Galupo, M. P. (2009). Cross-category friendship patterns: Comparison of heterosexual and sexual minority adults. *Journal of Social and Personal Relationships*, 26, 811–831.

Gerhardstein, K. R., & Anderson, V. N. (2010). There's more than meets the eye: Facial appearance and evaluations of transsexual people. *Sex Roles*, 62, 361–373.

Gershenson, O., & Penner, B. (Eds.). (2009). *Ladies and gents: Public toilets and gender*. Philadelphia: Temple University Press.

Glick, P., Gangl, C., Gibb, S., Klumpner, S., & Weinberg, E. (2007). Defensive reactions to masculinity threat: More negative affect toward effeminate (but not masculine) gay men. *Sex Roles*, 57, 55–59.

Greslé-Favier, C. (2009). *"Raising sexually pure kids": Sexual abstinence, conservative Christians and American politics*. New York: Rodopi.

Harding, T. (2007). The construction of men who are nurses as gay. *Journal of Advanced Nursing*, 60, 636–644.

Herek, G. M. (1986). On heterosexual masculinity: Some psychical consequences of the social construction of gender and sexuality. *American Behavioral Scientist*, 29, 563–577.

Herek, G. M., & Capitanio, J. P. (1996). "Some of my best friends": Intergroup contact, concealable stigma, and heterosexuals' attitudes toward gay men and lesbians. *Personality and Social Psychology Bulletin*, 22, 412–424.

Hill, D. B. (2002). Genderism, transphobia, and gender bashing: A framework for interpreting anti-transgender violence. In B. Wallace & R. Carter (Eds.), *Understanding and dealing with violence: A multicultural approach* (pp. 113–136). Thousand Oaks, CA: Sage.

Hill, D. B., & Willoughby, B. (2005). The development and validation of the Genderism and Transphobia Scale. *Sex Roles*, 53, 531–544.

Horn, S. S. (2007). Adolescents' acceptance of same-sex peers based on sexual orientation and gender expression. *Journal of Youth and Adolescence*, 36, 363–371.

Israel, G., & Tarver, D. (1997). *Transgender care*. Philadelphia: Temple University Press.

Jackson, P. (1991). The cultural politics of masculinity: Towards a social geography. *Transactions of the Institute of British Geographers (N. S.)*, 16, 199–213.

Jenkins, M., Lambert, E. G., & Baker, D. M. (2009). The attitudes of black and white college students toward gays and lesbians. *Journal of Black Studies*, 39, 589–613.

Karr, R. G. (1978). Homosexual labeling and the male role. *Journal of Social Issues*, 34, 73–83.

Keiller, S. W. (2010). Masculine norms as correlates of heterosexual men's attitudes toward gay men and lesbian women. *Psychology of Men & Masculinity*, 11, 38–52.

Kilianski, S. E. (2003). Explaining heterosexual men's attitudes toward women and gay men: The theory of exclusively masculine identity. *Psychology of Men & Masculinity*, 4, 37–56.

Kimmel, M. (1994). Masculinity as homophobia: Fear, shame and silence in the construction of gender identity. In H. Brod & M. Kaufman (Eds.), *Theorizing masculinities* (pp. 119–141). Newbury Park, CA: Sage.

Kite, M. E., & Whitley, B. E., Jr. (1998). Do heterosexual women and men differ in their attitudes toward homosexuality? A conceptual and methodological analysis. In G. M. Herek (Ed.), *Stigma and sexual orientation: Understanding prejudice against lesbians, gay men, and bisexuals* (pp. 39–61). Newbury Park, CA: Sage.

Knauer, N. J. (2000). Homosexuality as contagion: From *The Well of Loneliness* to the Boy Scouts. *Hofstra Law Review*, 29, 401–501. Available at http://www.hofstra.edu/PDF/law_lawrev_njk_nauer.pdf.

Landen, M., & Innala, S. (2000). Attitudes toward transsexualism in a Swedish national survey. *Archives of Sexual Behavior*, 29, 375–388.

Leaper, C. (1995). The use of *masculine* and *feminine* to describe women's and men's behavior. *Journal of Social Psychology*, 135, 359–369.

Leitenberg, H., & Slavin, L. (1983). Comparison of attitudes toward transsexuality and homosexuality. *Archives of Sexual Behavior*, 12, 337–346.

Lewis, G. B. (2003). Black-white differences in attitudes toward homosexuality and gay rights. *Public Opinion Quarterly*, 76, 59–78.

Mazziotta, A., Mummendey, A., & Wright, C. S. (2011). Vicarious intergroup contact effects: Applying social-cognitive theory to intergroup contact research. *Group Processes & Intergroup Relations*, 14, 255–274.

Mitchell, R. W. (2008). Minds: Other and not-so-other. *Interaction Studies*, 9, 377–396.

Mitchell, R. W., & Ellis, A. L. (2011). In the eye of the beholder: Knowledge that a man is gay increases American college students' perceptions of his cross-gender attributes. *Sexuality and Culture*, 15, 80–99.

Mitchell, R. W., & Ellis, A. L. (2012). Cat person, dog person, gay, or heterosexual: The effect of labels on a man's perceived masculinity, femininity, and likeability. *Society & Animals*.

Molotch, H., & Norén, L. (Eds.). (2010). *Toilet: Public restrooms and the politics of sharing*. New York: New York University Press.

Moreland, J. (1980). Age and change in the adult male sex role. *Sex Roles*, 6, 807–818.

Morman, M. T., & Floyd, K. (1998). "I love you, man": Overt expression of affection in male–male interaction. *Sex Roles*, 38, 871–911.

Nagoshi, J., Adams, K., Terrell, H., Hill, E., Bruzy, S., & Nagoshi, C. (2008). Gender differences in correlates of homophobia and transphobia. *Sex Roles*, 59, 521–531.

Namaste, K. (1996). Genderbashing: Sexuality, gender, and the regulation of public space. *Environment and Planning D: Society and Space*, 14, 221–240.

National Gay and Lesbian Task Force (2011). Injustice at every turn: A look at black respondents in the National Transgender Discrimination Survey. Available at http://www.thetaskforce.org/downloads/reports/reports/ntds_black_respondents.pdf.

National Student Genderblind Campaign (2010). *Colleges that offer gender-neutral rooming*. Retrieved from <http://www.genderblind.org>.

Norton, J. (1997). Deconstructing the fear of femininity. *Feminism and Psychology*, 7, 441–447.

Ohlander, J., Batalova, J., & Treas, J. (2005). Explaining educational influences on attitudes toward homosexual relations. *Social Science Research*, 34, 781–799.

Olson, D. H., & Claiborn, C. D. (1990). Interpretation and arousal in the counseling process. *Journal of Counseling Psychology*, 37, 131–137.

O'Neil, J. M., Helms, B., Gable, R., David, L., & Wrightsman, L. (1986). Gender role conflict scale: College men's fear of femininity. *Sex Roles*, 14, 335–350.

Pain, M. D., & Disney, M. E. (1995). Testing the reliability and validity of the Index of Attitudes toward Homosexuals (IAH) in Australia. *Journal of Homosexuality*, 30, 99–110.

Paluck, E. L., & Green, D. P. (2009). Prejudice reduction: What works? A review and assessment of research and practice. *Annual Review of Psychology*, 60, 339–367.

Parrott, D. J. (2008). A theoretical framework for antigay aggression: Review of established and hypothesized effects within the context of the general aggression model. *Clinical Psychology Review*, 28, 933–951.

Parrott, D. J., Adams, H. E., & Zeichner, A. (2002). Homophobia: Personality and attitudinal correlates. *Personality and Individual Differences*, 32, 1269–1278.

Parrott, D. J., & Zeichner, A. (2005). Effects of sexual prejudice and anger on physical aggression toward gay and heterosexual men. *Psychology of Men & Masculinity*, 6, 3–17.

Parrott, D. J., & Zeichner, A. (2008). Determinants of anger and physical aggression based on sexual orientation: An experimental examination of hypermasculinity and exposure to male gender role violations. *Archives of Sexual Behavior*, 37, 891–901.

Pollack, H. B. (1971). Change in homogeneous and heterogeneous sensitivity training groups. *Journal of Consulting and Clinical Psychology*, 37, 60–66.

Pomerantz, L. E. (2010). Winning the housing lottery: Changing university housing policies for transgender students. *Journal of Constitutional Law*, 12, 1215–1255.

Pusch, R. S. (2005). Objects of curiosity: Transgender college students' perceptions of the reaction of others. *Journal of Gay & Lesbian Issues in Education*, 3, 45–61.

Rankin, S. (2003). *Climate campus for gay, lesbian, bisexual, and transgender people: A national perspective*. Retrieved from <http://www.thetaskforce.org/downloads/reports/reports/CampusClimate.pdf>.

Reay, B. (2010). *New York hustlers: Masculinity and sex in modern America*. Manchester, UK: Manchester University Press.

Ricketts, W. A., & Hudson, W. W. (1980/1998). Index of Homophobia (Index of Attitudes toward Homosexuals). In C. M. Davis, W. L. Yarber, R. Bauserman, G. Schreer, & S. L. Davis (Eds.), *Handbook of sexuality-related measures* (pp. 367–368). Thousand Oaks, CA: Sage.

Roese, N. J., Olson, J. M., Borenstein, M. N., Martin, A., & Shores, A. L. (1992). Same-sex touching: The moderating role of homophobic attitudes. *Journal of Nonverbal Behavior*, 16, 249–259.

Rumens, N. (2010). Workplace friendships between men: Gay men's perspectives and experiences. *Human Relations*, 63, 1541–1562.

Sanlo, R., Rankin, S., & Schoenberg, R. (Eds.). (2002). *Our place on campus: Lesbian, gay, bisexual, transgender services and programs in higher education*. Westport, CT: Greenwood Press.

Schilt, K., & Westbrook, L. (2009). Doing gender, doing heteronormativity: "Gender normals", transgender people, and the social maintenance of heterosexuality. *Gender & Society*, 23, 440–464.

Sigelman, C. K., Howell, J. L., Cornell, D. P., Cutright, J. D., & Dewey, J. C. (1991). Courtesy stigma: The social implications of associating with a gay person. *The Journal of Social Psychology*, 131, 45–56.

Syrett, N. L. (2009). *The company he keeps: A history of white college fraternities*. Chapel Hill: University of North Carolina Press.

Talley, A., & Bettencourt, A. (2008). Evaluations and aggression directed at a gay male target: The role of threat and antigay prejudice. *Journal of Applied Social Psychology*, 38, 647–683.

Tasker, F. L., & Golombok, S. (1997). *Growing up in a lesbian family*. London: Guilford Press.

Tee, N., & Hegarty, P. (2006). Predicting opposition to the civil rights of trans persons in the United Kingdom. *Journal of Community Applied Social Psychology*, 16, 70–80.

Transgender Law & Policy Institute (2012). *Colleges/Universities*. Retrieved from <http://www.transgenderlaw.org/college/index.htm>.

Twain, M. (1884). *Adventures of Huckleberry Finn*. London: Chatto & Windus.

Vonofakou, C., Hewstone, M., & Voci, A. (2007). Contact with out-group friends as a predictor of meta-attitudinal strength and accessibility of attitudes toward gay men. *Journal of Personality and Social Psychology*, 92, 804–820.

Watjen, J. (2010). *Transgender and transsexual students on college campuses*. Honors Thesis: Eastern Kentucky University.

White, K. (1993). *The first sexual revolution: The emergence of male heterosexuality in modern America*. New York: New York University Press.

Williams, K. D., & Carter-Sowell, A. R. (2009). Marginalization through social ostracism: Effects of being ignored and excluded. In F. Butera & J. M. Levine (Eds.), *Coping with minority status: Responses to exclusion and inclusion* (pp. 104–122). New York: Cambridge University Press.